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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,872

10/12/2006

Robert Uden

5893

60333

7590

06/09/2010

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EXAMINER

HOOK, JAMES F

ART UNIT

PAPER NUMBER

3754

MAIL DATE

DELIVERY MODE

06/09/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,872	Applicant(s) UDEN, ROBERT	
	Examiner James F. Hook	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunner in view of Ehrfeld. The reference to Brunner discloses the recited conditioner where the use of such for water is merely intended use comprising a pipe f, a substantially flat plate "l" extending along a substantial portion of a length of the pipe and having a width substantially equal to the inner diameter of the pipe along the entirety of the length of the plate as seen in figures 13,14, a plurality of posts are seen to extend from each side of the plate causing a torturous flow of fluid there through, the posts are arranged in rows on or parallel to a longitudinal axis, there are a plurality of ribs as well that can be provided such as in addition to the posts where the ribs are substantially longitudinal and regularly displaced and change in height depending on their position on the plate, and the posts and ribs have similar heights next to one another. The reference to Brunner discloses all of the recited structure with the exception of forming some of the posts as cylindrical posts and having such pass through the plate. The reference to Ehrfeld discloses that it is old and well known in the art to form flow conditioners with round posts 58a,b which can pass through plates 24 and where such are also equivalent to flat posts as well. It would have been obvious to

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one skilled in the art to modify the posts in Brunner such that at least some of the posts are cylindrical in shape and have them pass through the plate as suggested by Ehrfeld where such would be a simpler structure and would allow for varied mixing in flow and would insure the posts did not move with respect to the plate and were oppositely disposed on the plate.

Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunner in view of Ehrfeld as applied to claims 26, and 28-32 above, and further in view of Getchell. The reference to Brunner as modified discloses all of the recited structure with the exception of providing a truncated conical member to direct flow toward the central portion of the pipe. The reference to Getchell discloses the recited fluid conditioner, where the use of such with water is merely intended use where the structure is capable of use with any fluid, comprising a pipe 7, a plate 15 located in the pipe and having at least one side of the plate means for causing the water flow to adopt a torturous path through the pipe, including a plurality of posts 16, the posts are at a normal angle to the plate, and means for directing the flow into the central position such as a truncated conical member 5 located at the inlet of the pipe, the posts pass through the plates. It would have been obvious to one skilled in the art to provide the pipe in Brunner as modified with a means to direct flow to a central position of the pipe in the form of a conical member as suggested by Getchell where such is a known structure used in combination with a flow conditioner plate and provides additional control of flow characteristics of the fluid flowing there through to insure proper conditioning.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brunner in view of Ehrfeld as applied to claims 26, and 28-32 above, and further in view of Schindler. The reference to Brunner as modified discloses all of the recited structure with the exception of applying an EMF to the conditioner. The reference to Schindler discloses the recited water conditioner, comprising a pipe 1, a plate 10 located in the pipe and having at least one side of the plate means for causing the water flow to adopt a torturous path through the pipe, including a plurality of posts 11 which also would be considered longitudinal ribs as well where some posts 11 can be considered posts and some can be considered ribs, they extend from a side of the plate, they are substantially adjacent an inner surface of the pipe, they are in rows that are parallel to a longitudinal axis of the plate, the posts are at a normal angle, and the plates and posts have the same height, where the posts being made of magnetic material would inherently create an EMF field. It would have been obvious to one skilled in the art to provide the pipe in Brunner with a means to create an EMF as suggested by Schindler where such is a known structure used in combination with a flow conditioner plate and provides additional conditioning of the fluid flowing there through to insure proper conditioning and reducing scale build up in the pipe.

Claims 26, 28-30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergman in view of Ehrfeld. The reference to Bergmann discloses the recited fluid conditioner, where the use of such with water is merely intended use where the structure is capable of use with any fluid, comprising a pipe 1, a plate 7 located in the pipe and having at least one side of the plate means for causing the water

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flow to adopt a torturous path through the pipe, including a plurality of posts 6 which also would be considered longitudinal ribs as well where some posts 6 can be considered posts and some can be considered ribs, they extend from the sides and tops of the plate, they are adjacent an inner surface of the pipe, they are in rows that are parallel to a longitudinal axis of the plate, the posts are at a normal angle, and the plates and posts have the same height, the posts pass through the plate. Any of the plates 2 are considered substantially flat plates with posts sticking out at normal angles from the plate on both sides thereof, the plate is seen to run the length of the pipe, and is substantially equal to the inner diameter, and the posts are adjacent the inner wall of the pipe. The reference to Bergman discloses all of the recited structure with the exception of forming some of the posts as cylindrical posts and having such pass through the plate. The reference to Ehrfeld discloses that it is old and well known in the art to form flow conditioners with round posts 58a,b which can pass through plates 24 and where such are also equivalent to flat posts as well. It would have been obvious to one skilled in the art to modify the posts in Bergman such that at least some of the posts are cylindrical in shape and have them pass through the plate as suggested by Ehrfeld where such would be a simpler structure and would allow for varied mixing in flow and would insure the posts did not move with respect to the plate and were oppositely disposed on the plate.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berman in view of Ehrfeld as applied to claims 26, 28-30 and 32 above, and further in view of Bey. The reference to Bergmann as modified discloses all of the recited structure with

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the exception of forming the ribs of different heights. The reference to Bey discloses a flow deflecting plate as seen in figure 7 which has a plate that is oriented in the vertical direction with a plurality of ribs 62,64,66,68 of different lengths to match the curve of the inside of the pipe. It would have been obvious to one skilled in the art to modify the plates in Bergmann as modified to be of varied heights to match the curve in a pipe wall as suggested by Bey where such would inherently insure mixing even close to the wall of the pipe.

Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berman in view of Ehrfeld as applied to claims 26, 28-30 and 32 above, and further in view of Getchell. The reference to Bergmann as modified discloses all of the recited structure with the exception of providing a truncated conical member to direct flow toward the central portion of the pipe. The reference to Getchell discloses the recited fluid conditioner, where the use of such with water is merely intended use where the structure is capable of use with any fluid, comprising a pipe 7, a plate 15 located in the pipe and having at least one side of the plate means for causing the water flow to adopt a torturous path through the pipe, including a plurality of posts 16, the posts are at a normal angle to the plate, and means for directing the flow into the central position such as a truncated conical member 5 located at the inlet of the pipe, the posts pass through the plates. It would have been obvious to one skilled in the art to provide the pipe in Bergmann as modified with a means to direct flow to a central position of the pipe in the form of a conical member as suggested by Getchell where such is a known structure

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used in combination with a flow conditioner plate and provides additional control of flow characteristics of the fluid flowing there through to insure proper conditioning.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berman in view of Ehrfeld as applied to claims 26, 28-30 and 32 above, and further in view of Schindler. The reference to Bergmann as modified discloses all of the recited structure with the exception of applying an EMF to the conditioner. The reference to Schindler discloses the recited water conditioner, comprising a pipe 1, a plate 10 located in the pipe and having at least one side of the plate means for causing the water flow to adopt a torturous path through the pipe, including a plurality of posts 11 which also would be considered longitudinal ribs as well where some posts 11 can be considered posts and some can be considered ribs, they extend from a side of the plate, they are substantially adjacent an inner surface of the pipe, they are in rows that are parallel to a longitudinal axis of the plate, the posts are at a normal angle, and the plates and posts have the same height, where the posts being made of magnetic material would inherently create an EMF field. It would have been obvious to one skilled in the art to provide the pipe in Bergmann as modified with a means to create an EMF as suggested by Schindler where such is a known structure used in combination with a flow conditioner plate and provides additional conditioning of the fluid flowing there through to insure proper conditioning and reducing scale build up in the pipe.

Response to Arguments

Applicant's arguments with respect to claims 26, and 28-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Lerner, Streiff, Pleasant, and Langecker disclosing state of the art flow conditioners.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James F. Hook/
Primary Examiner, Art Unit 3754

JFH